

Title (en)  
RADIAL SEALING DEVICE

Title (de)  
RADIALE DICHTUNGSVORRICHTUNG

Title (fr)  
DISPOSITIF D'ETANCHEITE RADIAL

Publication  
**EP 1893898 B1 20100602 (DE)**

Application  
**EP 06741035 A 20060613**

Priority  
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• AT 10482005 A 20050621

Abstract (en)  
[origin: WO2006135944A1] The invention relates to a radial sealing device (7) to be used in a radial pump (1), especially a sludge pump, comprising a housing (2, 2a) with a pump chamber (3) located therein, a pump propeller (4) which is fixed to a pump shaft (5), and a revolving centrifugal wheel (12) that is also fixed to the pump shaft (5). At least one first sealing means (8) which is preferably formed by at least one packing gland (10) is disposed in an annular space (16) located between the pump shaft (5) and the housing (2a) while a sealing water duct (15) of a sealing water system extends into the region of the first sealing means (8). In order to allow for reliable sealing and reduce the amount of sealing water needed, the sealing water duct (15) can be fluidically connected to the sealing chamber (13) via a preferably annular nozzle-type cross-sectional constriction (20), a unidirectionally sealing second sealing means (9) which allows fluid to flow from the sealing water duct (15) to the sealing chamber (13) while blocking the flow thereof in the opposite direction is arranged between the orifice (17) of the sealing water duct (15) and the cross-sectional constriction (20), and the second sealing means (9) is formed by a lip seal (11) that opens in the direction of the sealing chamber (13).

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Cited by  
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